

Amendments to the Drawings

The attached sheet of drawing includes changes to FIGURES 41a and 41b.
Please replace the original sheet including FIGURES 41a and 41b with the attached replacement sheet in which additions are made in red.

REMARKS

Specification

As shown on the attached sheet, Paragraph 2 of page 91 of the specification is amended to include the patent application serial number of the patent application recited in this paragraph entitled "Functional Separation of Internal and External Controls in Network Device."

Further, in response to the Examiner's objection regarding the non-uniformity of font in the second paragraph on page 91, Applicants note that this paragraph has been replaced as indicated above. This replaced paragraph is provided in the same font as the remainder of the specification.

Drawings

In response to the objections raised in connection with the drawings, FIGURES 41a and 41b are amended, as shown on the attached sheet and discussed in more detail below, to more clearly identify the top and bottom portions of the front and back portions of a chassis of a network device according to one embodiment of the invention.

Rejections Under 35 U.S.C. 112

In response to the rejections of claims 10 and 11, these claims are amended to clarify that the different portions recited therein refer to various portion of a *chassis* of a network device. Moreover, the front portion of a chassis of a network device generally refers to the portion through which network administrators may easily insert and remove various circuit cards, and a back portion of the chassis refers to a portion through which external network attachments/cables may be easily connected. *See, e.g.,* specification, pages 90 and 91. Further, the top and bottom portions of a chassis simply refer, respectively, to portions above and below a putative mid-plane thereof, as the ordinary meanings of these terms convey. Nonetheless, for additional clarification, FIGURES 41a and 41b, which schematically depict front and back of a network chassis, are labeled to indicate top-front, bottom-front, top-back, and bottom-back portions of the chassis.

Hence, top and bottom portions recited in claim 10, and top, front and bottom, front portions recited in claim 11, which refer to different portions of the chassis, are readily understood.

Rejections Under 35 U.S.C. 102

The Office Action rejects claims 1-18 as being anticipated by U.S. Patent No. 5,023,754 of Aug.

Claim 1, as amended, recites a network device that includes a first functional printed circuit board located in a first portion thereof, and a second functional printed circuit board located in a second portion, wherein the second functional printed circuit board is reverse orientated within the network device with respect to the first functional printed circuit board. The network device further includes a first mid-plane that is *electrically* connected to the first functional printed circuit board for routing electrical signals generated by that board, and a second mid-plane that is *electrically* connected to the second functional printed circuit board for routing electrical signals generated by that board. A switch fabric card that is connected to both the first and second mid-planes provides electrical connectivity therebetween.

Aug discloses a double-sided motherboard for use in a computer system, which allows connecting logic elements to both its front and back sides for more efficient packing of these elements within the system's enclosure. More particularly, the double-sided motherboard includes logic connectors on each side to which logic elements can be connected. Two stiffeners (elements 30 and 44 in FIGURE 2 of Aug) mechanically support the front and the back sides of the motherboard.

Unlike claim 1, Aug's system does not include two mid-planes, each of which is connected to one of two functional printed circuit boards. More specifically, the stiffeners 30 and 44 in Aug, to which the Examiner refers, are not mid-planes, as recited in claim 1. Claim 1 recites that the first and second mid-planes are *electrically* connected, respectively, to the first and second functional printed circuit boards for *routing electrical signals generated by these boards*. In contrast, stiffeners 30 and 44 are purely mechanical elements for providing structural support to the double-sided motherboard. In addition, claim 1 recites a switch fabric card

connected to both the first and second mid-planes to provide electrical connectivity therebetween – a feature not taught by Aug.

Thus, claim 1 and claims 2-11 that depend on claim 1 distinguish patentably over Aug.

Independent claim 12 recites a network device having a first plurality of functional printed circuit boards located in a first portion of the network device and a second plurality of functional printed circuit boards located in a second portion of the network device, wherein the second plurality of functional circuit boards are reverse orientated within the network device with respect to the first plurality of functional printed circuit boards. The network device further includes first and second mid-planes *electrically* connected, respectively, to the first and second plurality of functional printed circuit boards to *route electrical signals generated thereby*. A switch fabric card is connected to both the first and second mid-planes *to provide electrical connectivity therebetween*.

The arguments presented above in connection with claim 1 apply with equal force to establish that claim 12 is also patentable. In particular, Aug does not teach mid-planes such as those recited in claims 1 and 12, as discussed in detail above. Further, claims 13-18 depend on claim 12, and hence are also patentable.

CONCLUSION

In view of the above amendments and remarks, Applicants respectfully request reconsideration and allowance of the application. The Examiner is invited to call the undersigned at (617) 439-2514 if there are any remaining issues.

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Respectfully submitted,

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